

STAT

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Proposed Modification/Development of Two Articles'
Life-Support Equipment

SR-71

1. Enlarge openings to the suit and glove ring.
2. Permanently install the thermal protective unit.
3. Independent operation of the sunshade and clear visor to enable use of sunshade without oxygen during the low-level flights.
4. Replace sunshade with graduated tinted helmet visor designed for sun protection and maximum visibility - dark on top.
5. Larger food port in helmet to accept tube food. The present feeding port is small and can only be used for liquid feeding.
6. Place the UCD plunger in a more accessible position closer to the crotch.
7. Increase mobility of the inflated pressure suit during the pre-ejection position to make it easier to reach the D ring.
8. Six-line release to reduce oscillation and improve steerability.
9. Improve the male/female connection on the internal hose of the urinal assembly - prefer a bayonet connection to the C ring.
10. Reduce the bulk of the S-901J pressure-suit boot.

USAF review(s) completed

1. Improve the S100 helmet takeup assembly similar to the S1010 helmet.
2. Improve the S-100 helmet lining to fit better around the ears with a repositional ear cup.
3. Independent operating sunshade for the S100 helmet to permit use during low altitude flight when oxygen is not required.
4. Reduce S100 helmet weight perhaps by adding a counter-balance spring.
5. Install a quick change face barrier in the S100 helmet similar to the one used in the S1010 or redesign it to make it easier to maintain.
6. Improve ventilation garment to reduce back pressure and provide increased ventilation.
7. Improve the quick disconnect between suit and seat kit for ground egress procedure.
8. Improve the S1010 UCD system to handle increase flow rate capability.
9. Modify the S1010 UCD to prevent stricture by the intergrated parachute harness.
10. Improve reliability of S1010 entry closure to reduce excessive failure rate.

11. Improve S1010 glove ventilation.
12. Reduce S1010 suit weight by modifying the bladder with the restraint layer; include a light weight hardware; reduce bulk, cut easement to the minimum and improve the parachute harness.
13. Automatic oxygen shut off when the S1010 visor is up, similar to the S100 or S901J; helmet to eliminate manual control.
14. Improve inflight feeding capability; redesign the inflated feeding port to make it easier to maintain.
15. Battery pack to heat visor during high altitude ejection in the C.
16. Mechanical massager seat cushion to improve the circulation and reduce fatigue.
17. Provision for heating and/or maintain liquid food (soup and hot drinks.)
18. Provide an easier or more practical method of excessible stick foods. The present tube stick gun is too heavy and bulky to be easily utilized during flight.
19. Install a small cassette music system to reduce fatigue and eliminate boredom during long flight low activity flights.
20. Install the 6-line release on the parachute to reduce oscillation to improve full stability and provide some directional control.

21. Individually fitted lumbar pads to ease back tension and muscle strain during long duration flights.
22. Improve the male/female connection on the internal hose of the S1010 urinal collection assembly (USD) - prefer bayonet-type connection over the C ring.
23. Reduce the bulk of the S1010 pressure suit boot.